

# EUROPEAN PATENT OFFICE

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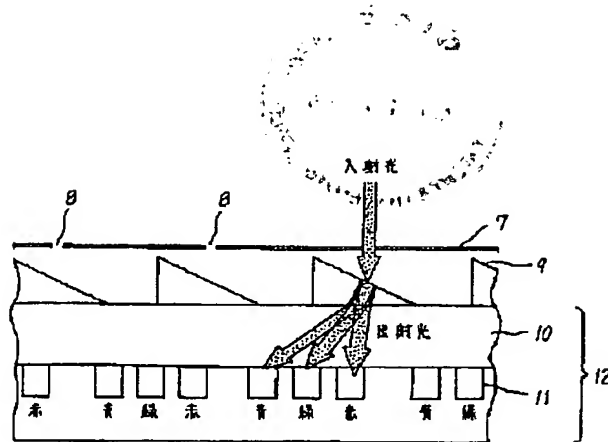
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TITLE : SOLID-STATE IMAGE PICKUP DEVICE



**ABSTRACT :** **PROBLEM TO BE SOLVED:** To allow the device to have a small sized configuration compatible with video image processing with high image quality by providing each optical element that is laid out in the unit of pixels and has a wavelength spectral characteristic, allowing the optical elements to apply wavelength dispersion to an incident light and to emit red, green and blue components, and providing photoelectric conversion elements that are placed in positions and convert the respective components into electric signals.

**SOLUTION:** An incident light that is a collimated light or a light close to the collimated light is made incident onto a slope of a prism 9 through a slit or pin hole 8 provided for a light shield plate 7. The prism 9 separates the incident light into red, green, blue components. A transparent medium 10 has a refractive index different from that of the prism 9. The light incident on the slope of the prism 9 that is a collimated light or a light close to the collimated light propagates different directions depending on the wavelength of the light at the incident point and the propagation direction is changed again at an emitted point on of the prism 9 depending on a difference from a refractive index of each medium between the prism 9 and the transparent medium 10. The emitted light whose propagation direction is changed is made incident onto photoelectric conversion elements 10 placed at an optical output terminal of the transparent medium 10.

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